orthodontic technicians, dental laboratory technicians, prosthetics technicians, camera repairers, and watch repairers.

Sources of Additional Information

For general information about a career as a dispensing optician, contact:

Opticians Association of America, 10341 Democracy Lane, Fairfax, VA 22030-2521. Internet: http://www.opticians.org

For general information about a career as a dispensing optician and a list of accredited training programs, contact:

 Commission on Opticianry Accreditation, 10341 Democracy Lane, Fairfax, VA 22030-2521. Internet: http://www.coaccreditation.com

For general information on opticianry and a list of home-study programs, seminars, and review materials, contact:

 National Academy of Opticianry, 8401 Corporate Drive, Suite 605, Landover, MD 20785. Internet: http://www.nao.org

Pharmacy Technicians and Assistants

(O*NET 32518)

Significant Points

- Opportunities for pharmacy technicians and assistants are expected to be good, especially for those with formal training or previous work experience.
- Many technicians and assistants work evenings, weekends, and some holidays.
- Seven out of 10 jobs were in retail pharmacies, either independently owned or part of a drug store chain, grocery store, department store, or mass merchandiser.

Nature of the Work

Pharmacy technicians and assistants help licensed pharmacists provide medication and other health care products to patients. Pharmacy technicians usually perform more complex tasks than assistants do, although in some States their duties and job titles overlap. Technicians usually perform routine tasks to help prepare prescribed medication for patients, such as counting and labeling. A pharmacist must check every prescription before it can be given to a patient. Technicians refer any questions regarding prescriptions, drug information, or health matters to a pharmacist (see the statement on pharmacists, located elsewhere in the Handbook). Pharmacy assistants usually have fewer, less complex responsibilities than technicians. Assistants are often clerks or cashiers who primarily answer telephones, handle money, stock shelves, and perform other clerical duties.

Pharmacy technicians who work in retail pharmacies have varying responsibilities depending on State rules and regulations. Technicians receive written prescriptions or requests for a prescription refill from patients or representatives. They must verify that the information on the prescription is complete and accurate. To prepare the prescription the technician must retrieve, count, pour, weigh, measure, and sometimes mix the medication. Then, they prepare the prescription labels, select the type of prescription container, and affix the prescription and auxiliary labels to the container. Once the prescription is filled, technicians price and file the prescription, which must be checked by a pharmacist before it is given to a patient. Technicians may establish and maintain patient profiles, prepare insurance claim forms, and stock and take inventory of prescription and over-the-counter medications. Some also clean the pharmacy equipment, help with the maintenance of equipment and supplies, and manage the cash register.

In hospitals, technicians have added responsibilities. They read patient charts and prepare and deliver the medicine to patients. The

pharmacist must check the order before it is delivered to the patient. The technician then copies the information about the prescribed medication onto the patient's profile. Technicians may also assemble a 24-hour supply of medicine for every patient. They package and label each dose separately. The package is then placed in the medicine cabinet of each patient, until the supervising pharmacist checks it. It is then given to the patient. Technicians are responsible for keeping a running inventory of medicines, chemicals, and other supplies used.

Working Conditions

Pharmacy technicians and assistants work in clean, organized, welllighted, and well-ventilated areas. Most of their workday is spent on their feet. They may be required to lift heavy boxes or to use stepladders to retrieve supplies from high shelves.

Technicians and assistants work the same hours as pharmacists. This includes evenings, nights, weekends, and some holidays. Most technicians work 35-45 hours a week. Since some hospital and retail pharmacies are open 24 hours a day, technicians and assistants may work varying shifts. There are many opportunities for parttime work in both retail and hospital settings.

Employment

Pharmacy technicians and assistants held about 170,000 jobs in 1998. Seven out of 10 jobs were in retail pharmacies, either independently owned or part of a drug store chain, grocery store, department store, or mass merchandiser. Two out of 10 jobs were in hospitals and a small number were in mail-order pharmacies, clinics, pharmaceutical wholesalers, and the Federal Government.



A pharmacy technician establishes and maintains patient profiles.

Training, Other Qualifications, and Advancement

Although most pharmacy technicians receive informal on-the-job training, employers are beginning to favor those who have completed formal training. However, there are currently few State and no Federal requirements for formal training or education of pharmacy technicians. Employers who can neither afford, nor have the time to give on-the-job training, often seek formally educated pharmacy technicians. Formal education programs emphasize the technicians' interest and dedication to the work to potential employers. Some hospitals, proprietary schools, vocational or technical colleges, and community colleges offer formal education programs.

Formal pharmacy technician education programs require classroom and laboratory work in a variety of areas, including medical and pharmaceutical terminology, pharmaceutical calculations, pharmacy record keeping, pharmaceutical techniques, and pharmacy law and ethics. Technicians are also required to learn medication names, actions, uses, and doses. Many training programs include clerkship or internships, where students gain hands-on experience in actual pharmacies. Students receive a diploma, certificate, or an associate degree, depending on the program.

Prospective pharmacy technicians with experience working as an assistant in a community pharmacy or volunteering in a hospital may have an advantage. Employers also prefer applicants with strong customer service and communication skills and experience managing inventories, counting, measuring, and using a computer. Technicians entering the field need strong spelling and reading skills. A background in mathematics, chemistry, English, and health education may also be beneficial.

The Pharmacy Technician Certification Board administers the National Pharmacy Technician Certification Examination. This exam is voluntary and displays the competency of the individual to act as a pharmacy technician. Eligible exam candidates must have a high school diploma or GED and those who pass the exam earn the title of Certified Pharmacy Technician. Certification helps technicians formalize their career and feel like part of a health care team. Employers know that individuals who pass the exam have a standardized body of knowledge and skills.

Certified technicians must be recertified every 2 years. Technicians must complete 20 contact hours of pharmacy related topics within the 2-year certification period to become eligible for recertification. At least 1 contact hour must be in the area of pharmacy law. Contact hours can be earned from several different sources including pharmacy associations, pharmacy colleges, and pharmacy technician training programs. Up to 10 contact hours can be earned when the technician is employed under the direct supervision and instruction of the pharmacist.

Successful pharmacy technicians are alert, observant, organized, dedicated, and responsible. They should be willing and able to take directions. They must enjoy precise work—details are sometimes a matter of life and death. Although a pharmacist must check and approve all their work, they should be able to work on their own without constant instruction from the pharmacist. Candidates interested in becoming pharmacy technicians cannot have prior records of drug or substance abuse.

Strong interpersonal and communication skills are needed because there is a lot of interaction with patients, coworkers, and health care professionals. Teamwork is very important because technicians are often required to work with other technicians.

Pharmacy assistants are almost always trained on-the-job. They may begin by observing a more experienced worker. After they become familiar with the store's equipment, policies, and procedures, they begin to work on their own. Once they become experienced workers, they are not likely to receive training, except when new equipment is introduced or when policies or procedures change. When necessary, on-the-job training is usually provided.

To become a pharmacy assistant, one should be able to perform repetitious work accurately. Assistants need good basic mathematics skills and good manual dexterity. Because they deal constantly with the public, pharmacy assistants should be neat in appearance, and able to deal pleasantly and tactfully with customers. Some employers may prefer people with experience typing, handling money, or operating specialized equipment, including computers.

Advancement is usually limited, although some technicians enroll in pharmacy school and become pharmacists.

Job Outlook

Employment of pharmacy technicians and assistants is expected to grow as fast as average for all occupations through 2008 due to the increased pharmaceutical needs of a larger and older population, and greater use of medication. The increased number of middle aged and elderly people will spur demand for technicians and assistants in all practice settings. The middle aged and elderly populations use more prescription drugs, on average, than younger people.

Job opportunities are expected to be good, especially for technicians and assistants with formal training or previous experience. Many jobs for pharmacy technicians and assistants will result from the need to replace workers who transfer to other occupations or leave the labor force. Opportunities for part-time work are also expected to be good.

Cost-conscious insurers, pharmacies, and health systems will continue to emphasize the role of technicians and assistants. As a result, pharmacy technicians and assistants will assume responsibility for more routine tasks previously performed by pharmacists. Pharmacy technicians will also need to learn and master new pharmacy technology as it surfaces. For example, robotic machines are used to dispense medicine into containers. Technicians oversee the machine, stock the bins, and label the containers. Although automation is becoming increasingly incorporated into the job, it will not necessarily reduce the need for technicians.

Many States have legislated the maximum number of technicians who can work under a pharmacist. In some States, increased demand for technicians has encouraged an expanded ratio of technicians to pharmacists.

Earnings

Median hourly earnings of pharmacy technicians in 1998 were \$8.54. The middle 50 percent earned between \$7.11 and \$10.64; the lowest 10 percent, less than \$6.08 and the highest 10 percent, more than \$12.73. Median hourly earnings of pharmacy technicians were \$8.00 in drug stores, \$8.40 in grocery stores, and \$8.50 in department stores in 1997.

Median hourly earnings of pharmacy aides, also called pharmacy technicians, were \$8.88 in 1998. The middle 50 percent earned between \$7.02 and \$10.75; the lowest 10 percent, less than \$5.94 and the highest 10 percent, more than \$12.64. Median hourly earnings of pharmacy aides were \$7.10 in drug stores and \$9.60 in hospitals in 1997.

Certified technicians may earn more. Shift differentials for working evenings or weekends can also increase earnings. Some technicians belong to unions representing hospital or grocery store workers.

Related occupations

Workers in other medical support occupations include dental assistants, health information technicians, licensed practical nurses, medical secretaries, medical transcriptionists, occupational therapy assistants and aides, physical therapist assistants and aides, and surgical technologists.

Sources of Additional Information

For information on certification and a National Pharmacy Technician Certification Examination Candidate Handbook contact:

- Pharmacy Technician Certification Board, 2215 Constitution Ave. NW., Washington DC 20037. Internet: http://www.ptcb.org
 - For information on a career as a pharmacy technician, contact:
- ◆ American Society of Health System Pharmacists, 7272 Wisconsin Ave., Bethesda, MD 20814. Internet: http://www.ashp.org
- ▼ National Association of Chain Drug Stores, 413 N. Lee St., P.O. Box 1417-D49, Alexandria, VA 22313-1480. Internet: www.nacds.org